



UNITED STATES PATENT AND TRADEMARK OFFICE

mn
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,511	08/26/2003	Kotaro Kaneko	011350-321	2710
21839	7590	05/25/2007		
BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER PAN, JOSEPH T	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 05/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,511

Applicant(s)

KANEKO, KOTARO

Examiner

Joseph Pan

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/11/06&8/26/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's response filed on March 7, 2007 has been carefully considered. Claims 1-10, 19 have been amended. New claim 20 has been added. Claims 1-20 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Gupta et al. (U.S. Pub. No. 2003/0009699 A1), hereinafter "Gupta".

Referring to claim 1:

Gupta teaches:

A computer readable medium storing a computer program for a controlling apparatus, wherein said computer program causes said controlling apparatus to execute procedures of:

monitoring a frequency of communications from said controlling apparatus to the outside (see figure 2, element 62 'anomaly detector'; page 12,

Art Unit: 2135

paragraph [0149]; page 5, paragraph [0069]; and page 6, paragraph [0082] of Gupta); and

detecting computer virus infection at the controlling apparatus by means of comparing the monitored frequency of communications with a preset threshold value (see page 12, paragraph [0149] of Gupta).

Referring to claims 2, 11:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the plurality of external devices (see page 13, paragraph [0161], last 3 lines of Gupta).

Referring to claims 3, 12:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the specific destination port (see page 8, paragraph [0103] of Gupta).

Referring to claims 4, 18:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the warning message (see page 4, paragraph [0055] of Gupta).

Referring to claims 5, 13:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the time interval (see page 6, paragraph [0077] of Gupta).

Referring to claims 6, 14:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses monitoring a number of packets that are associated with a specific destination port number (see page 8, paragraph [0103] of Gupta).

Referring to claims 7, 15:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta

Art Unit: 2135

further discloses the connection request packet (see page 8, paragraph [0103], TCP SYN packet, of Gupta).

Referring to claim 8:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the controlling apparatus (see e.g. figure 1, element 27-0 of Gupta).

Referring to claim 9, 17:

Gupta discloses the claimed subject matter: A computer readable medium storing a computer program for a controlling apparatus (see claim 1 above). Gupta further discloses the image forming apparatus (see figure 14, element 122 'printer' of Gupta).

Referring to claims 10, 19:

Gupta teaches:

A controlling apparatus comprising:

a monitor for monitoring a frequency of communications from said controlling apparatus to the outside (see figure 2, element 62 'anomaly detector'; page 12, paragraph [0149]; page 5, paragraph [0069]; and page 6, paragraph [0082] of Gupta);

a detector for detecting computer virus infection at said controlling apparatus by comparing the monitored frequency of communications with a preset threshold value (see page 12, paragraph [0149] of Gupta); and

printing out a warning content when computer virus infection is detected (see page 12, paragraph [0149], 'generate an alert when traffic exceeds a predetermined high water mark for a given zone, such as a single server, a sub-net, an enterprise network, and the like', of Gupta).

Referring to claim 16:

Gupta discloses the claimed subject matter: a controlling apparatus (see claim 10 above). Gupta further discloses the frequency of the connection request packet (see page 8, paragraph [0103], TCP SYN packet; and page 12, paragraph [0149], 'generate an alert when traffic exceeds a predetermined high water mark for a

Art Unit: 2135

given zone, such as a single server, a sub-net, an enterprise network, and the like', of Gupta).

Referring to claim 20:

Gupta discloses the claimed subject matter: a controlling method used in controlling apparatus (see claim 19 above). Gupta further discloses the controller (see page 11, paragraph [0134], 'This implementation is in the form of a general-purpose computer', of Gupta).

Response to Arguments

4. Applicant's arguments filed on March 7, 2007 have been fully considered but they are not persuasive.

Applicant argues:

"Therefore, it is necessary to monitor data received from outside, rather than data being sent to outside,..." (see page 1, last line, Applicant Arguments/Remarks).

Examiner maintains:

Gupta discloses:

"[0069] The second anomaly detection technique of traffic profiling characterizes the normal behavior of the target system. This behavior can be termed connectivity behavior, as it describes traffic flowing over the target system's connection to a network. The target system can be a whole enterprise network, an individual server or host machine, a class of services on a machine, or a particular user on a machine. Packet length and packet rate are the two most basic measures on a link." (see page 5, paragraph [0069] of Gupta, emphasis added). Thus, Gupta discloses the traffic flow from the target system to a network [i.e., outbound].

Gupta further discloses "[0082] By identifying the set of commonly used request-response packet pairs and creating a simple balance profile, the anomaly detector 62 detects most attacks. This is accomplished by: (1) keeping a run-time count of request

Art Unit: 2135

and response packets separately, (2) establishing a rate profile for the occurrence of these individual packets and generate an alert if the threshold of deviation is crossed, and then (3) correlate the request and response by simply checking the balances. Request-response examples include: TCP SYN-TCP SYN & ACK; TCP FIN--TCP FIN & ACK; CIMP ECHO REQ--ICMP ECHO REPLY, ARP request--ARP response, DNS query--query response, HTTP request--response.” (see page 6, paragraph [0082] of Gupta, emphasis added). Thus, Gupta discloses identifying the commonly used request-response packet pairs [i.e., inbound and outbound traffic], and creating a simple balance profile.

Applicant argues:

“Gupta does not disclose special functions such as monitoring data and detecting virus at the printer itself.” (see page 2, 4th paragraph, Applicant Arguments/Remarks, emphasis added)

Examiner maintains:

The specification of the application discloses:

“[0023] The network system shown in FIG. 1 has a Multi-Function Peripheral (MFP) 100. MFP 100 is equipped with a computer 200, which functions as a controlling apparatus, and a copying machine 300 connected to computer 200 via a cable 500.” (see Kaneko, emphasis added)

Gupta discloses that a sensor has the capability of monitoring data and detecting virus in inbound/outbound traffic in a network (see e.g. figure 2, element 62 ‘Anomaly Detector’, element 60 ‘Statistics Analysis and DDOS Detection Module’, element 55 ‘Attack Detector’ of Gupta)

Gupta further discloses “In addition, a local sensor security module 27_0 is positioned between the enterprise network 30 and a protected server 32” (see page 2, paragraph [0033], lines 8-10 of Gupta). Therefore, the local sensor 30 monitors data and detects virus for the protected server 32, and functions as a controlling apparatus of the protected server 32.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

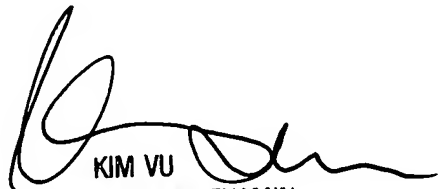
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Application/Control Number: 10/647,511
Art Unit: 2135

Page 8

Joseph Pan
May 11, 2007



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100